Early Stage Non–Small-Cell Lung Cancer: Surgical Implications of the New Adenocarcinoma Classification

To the Editor:

We read with great interest the article by Osarogiagbon et al.[1] highlighting the role of accurate mediastinal staging of resected non–small-cell lung cancer (NSCLC). New surgical approaches have been proposed in the recent years in case of cT1a, N0, or N1 less than hilar NSCLC. These include sublobar resection, video-assisted lobectomy, and robotic lobectomy. Moreover, new lymphadenectomy approaches have been proposed and adopted in early-stage NSCLC, including lobe-specific lymphadenectomy in cT1a as proposed in Europe by the European Society of Thoracic Surgeons (ESTS) guidelines,[2] and lymph node sampling according to the American College of Surgery Oncology Group Trial proposed by Darling et al.[3] In early-stage NSCLC (clinically N0 with pathological nodule size ≤10 mm), systematic nodal dissection seems to be universally unnecessary as the risk of nodal involvement is very low. In this scenario, the patients selection for sublobar or lobar resection and the role of mediastinal sampling versus radical lymphadenectomy is actually crucial because of the increasing proportion of lung cancer screening programs, and because of the new implications of the International Association for the Study of Lung Cancer/American Thoracic Society/European Respiratory Society revision of the adenocarcinoma classification.[4] These could have profound implications for thoracic surgeons. Indeed, as reported by Van Schill et al.[5] the new categories, adenocarcinoma in situ (AIS) and minimally invasive adenocarcinoma (MIA) less than 3 cm, should have 100% 5-year disease-free survival after sublobar resection and mediastinal sampling. The definitions of AIS and MIA seem to overlap almost precisely with the kinds of small, less-aggressive tumors identified by the clinical evidence, like ground-glass opacity (GGO). We completely agree with the Osarogiagbon et al.that most resections had suboptimal mediastinal lymph node examination up to 40%, according to Surveillance, Epidemiology and End Results and National Non-Communicable Diseases Program data sets, but maybe in a cT1 GGO-adenocarcinoma subset, the complete mediastinal lymph node examination (CMLE) may not be necessary. The analysis of the correlation among GGO, AIS/MIA histology, and limited resection without CMLE could strengthen the surgical implications of the new adenocarcinoma classification. In the near future, the role of the multidisciplinary team will be crucial in defining pre- and intraoperative early-stage AIS or MIA, and in tailoring and planning oncologically valid limited resections without CMLE.

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In Response:

Cafarotti et al.[1] raise several questions about the optimal surgical lymph node staging procedure in patients with relatively low-risk non–small-cell lung cancer, especially adenocarcinoma in situ and minimally invasive adenocarcinoma. Their departure point was a report in this journal, of poor correlation between surgical mediastinal lymph node examination claims and an audit of lymph nodes identified in the pathology report.[2]

The roles of minimally invasive lung resection and sublobar resection are not addressed in the reference publication.[2] But neither the technique of resection (open, video-assisted, robotic-assisted), nor the extent of resection (wedge, segmental, lobar, or more extensive) alter the need for an oncologically sound operation with negative margins and proper nodal staging. Until the results of the ongoing North American (Cancer and Leukemia Group B 140503 [ClinicalTrials.gov #00499330]) and Japanese (Japan Clinical Oncology Group 0802/West Japan Oncology Group 4607L) trials

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